

X<sup>2</sup> = CO, CS or SO<sub>2</sub>

X<sup>3</sup> = O, S, CH<sub>2</sub>, CF<sub>2</sub>, CFH,  
 NH, NCH<sub>3</sub>

Figure 1

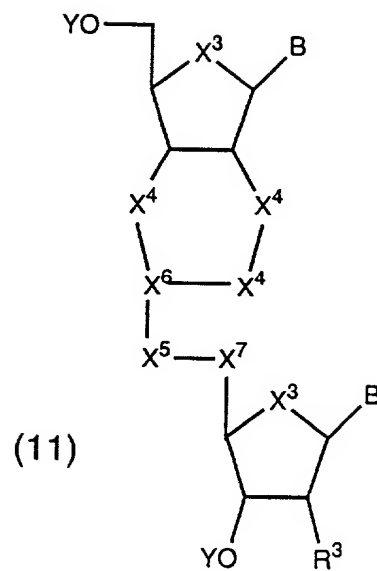
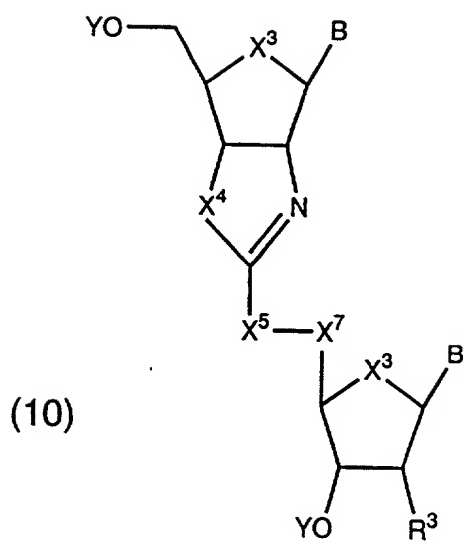
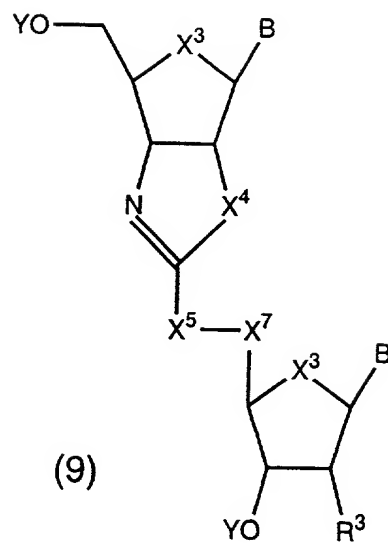
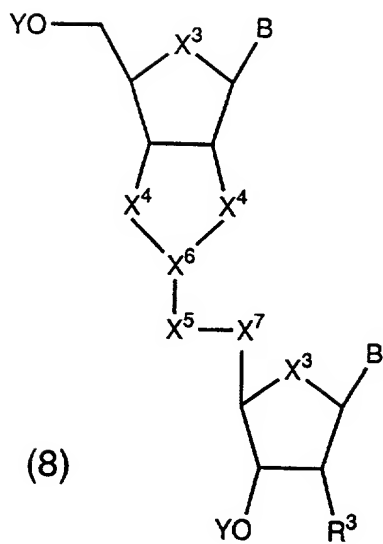


Figure 2

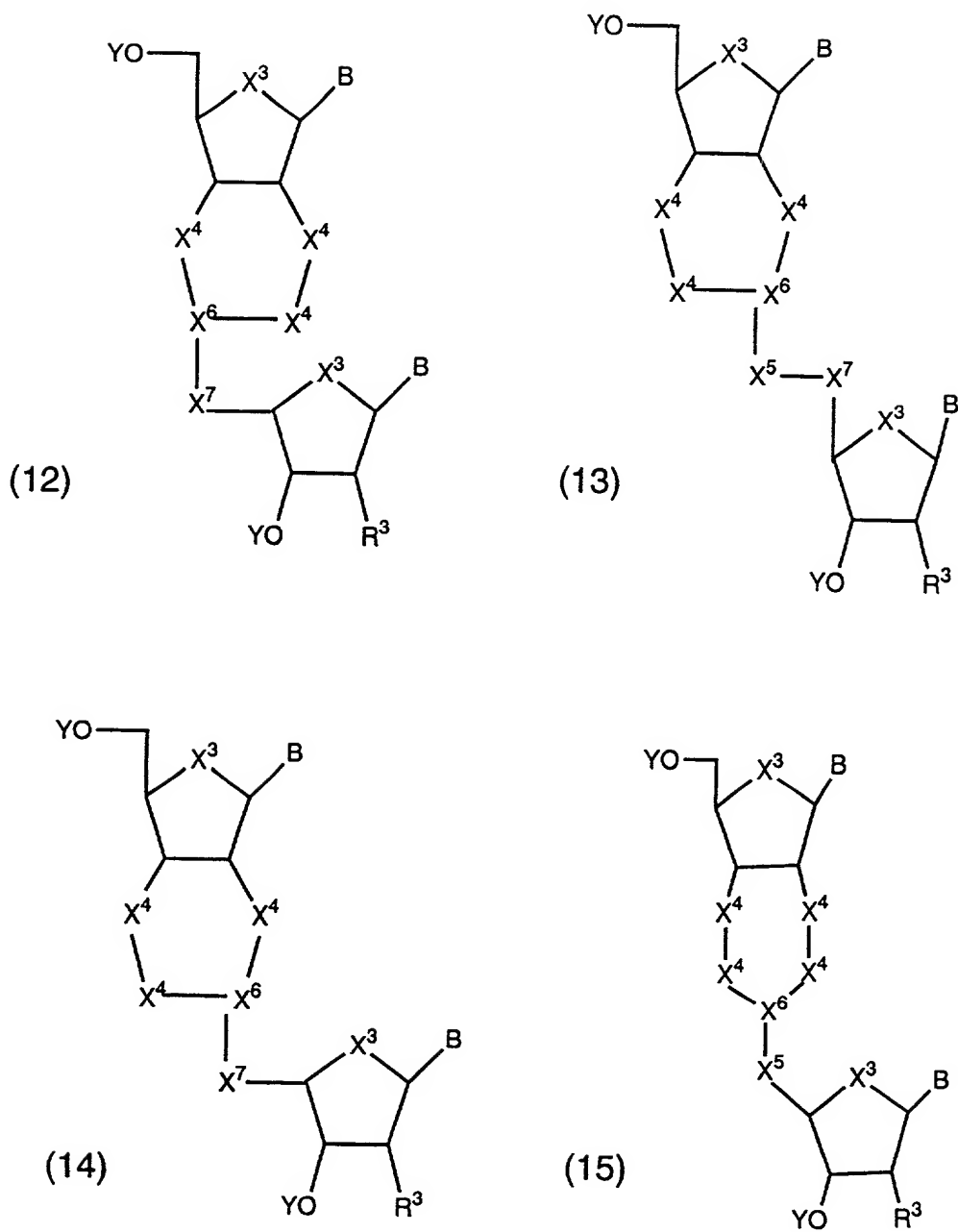


Figure 3

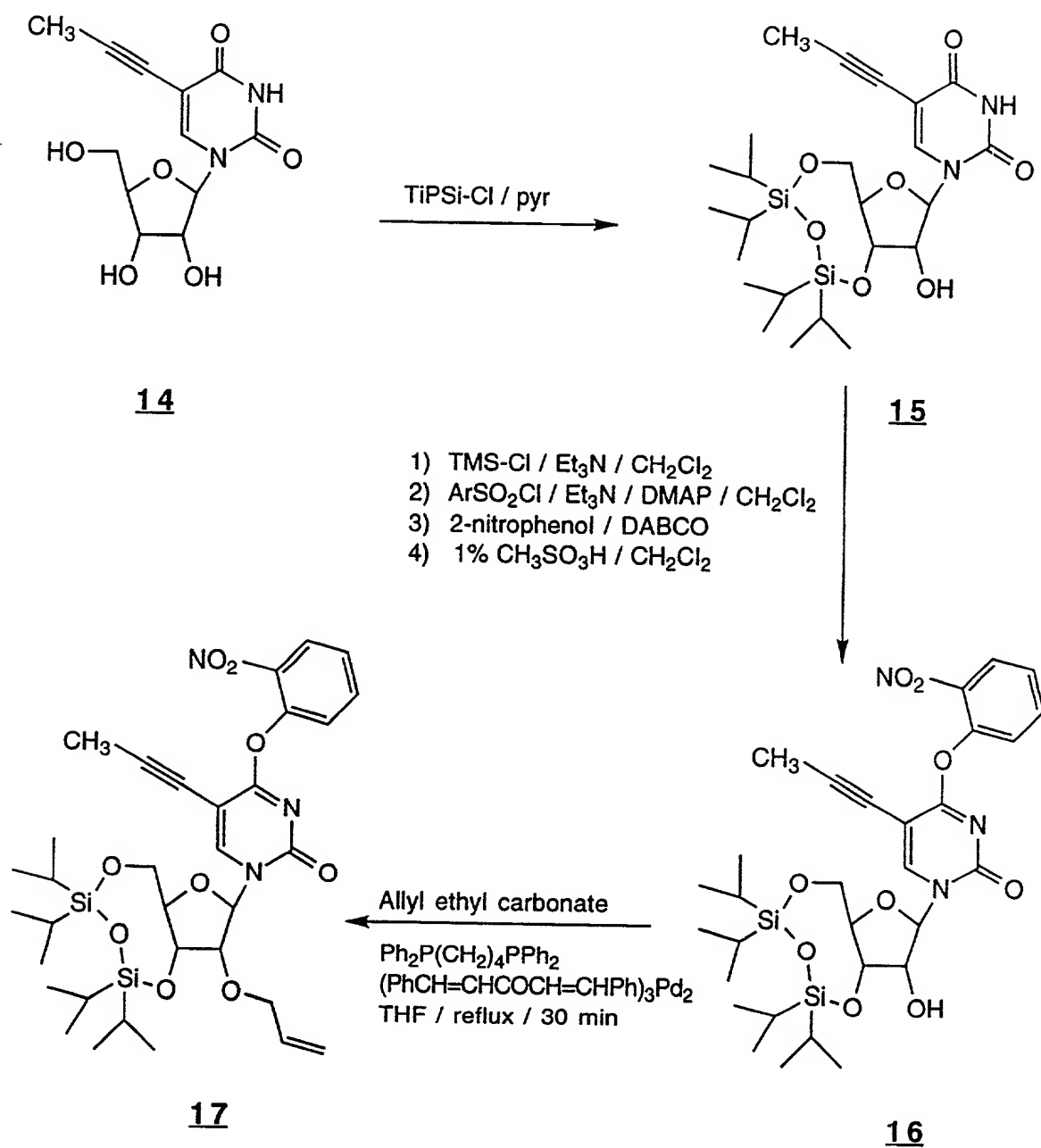


Figure 4-1

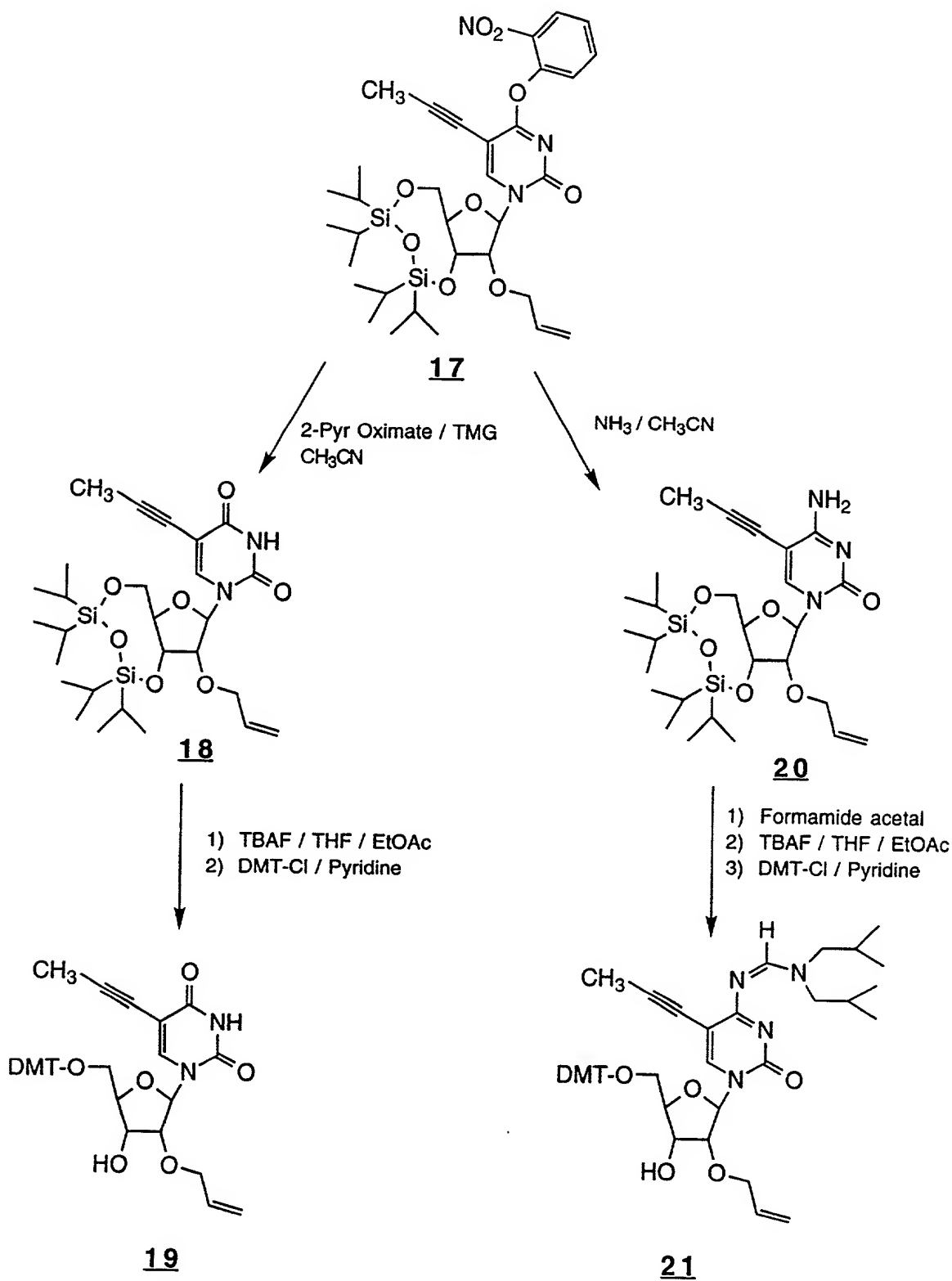


Figure 4-2

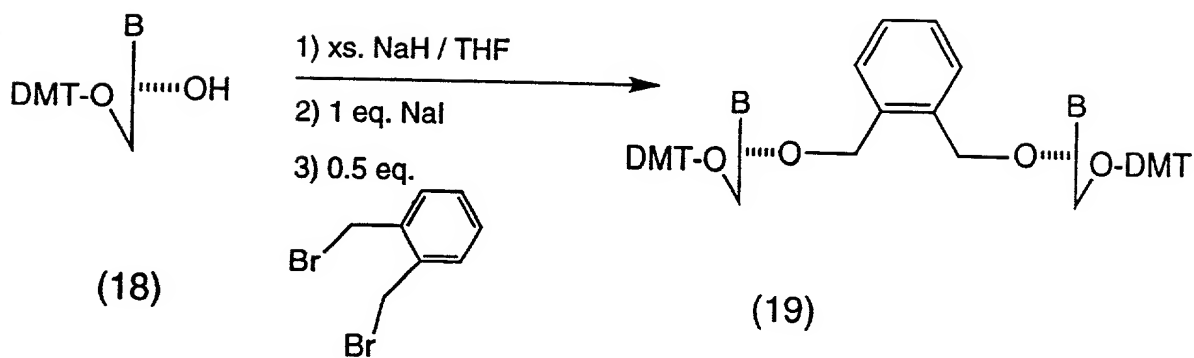
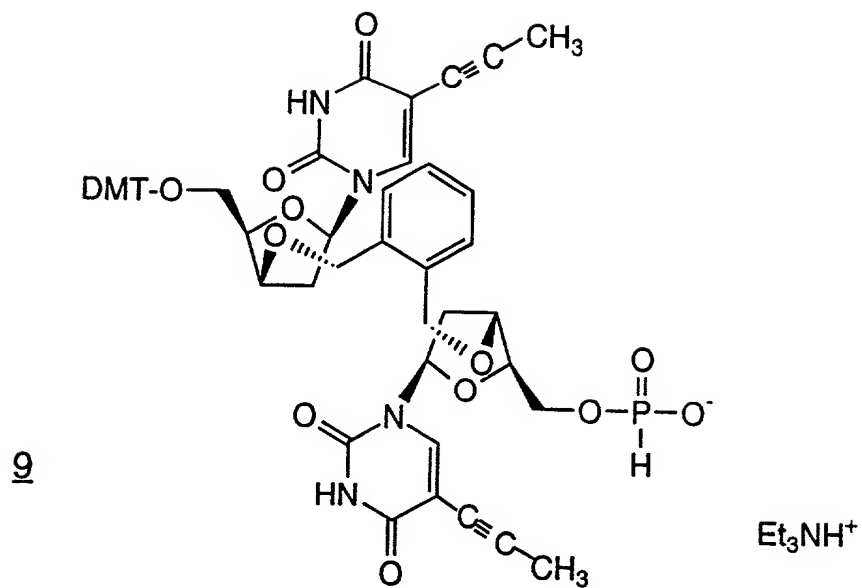


Figure 5-1

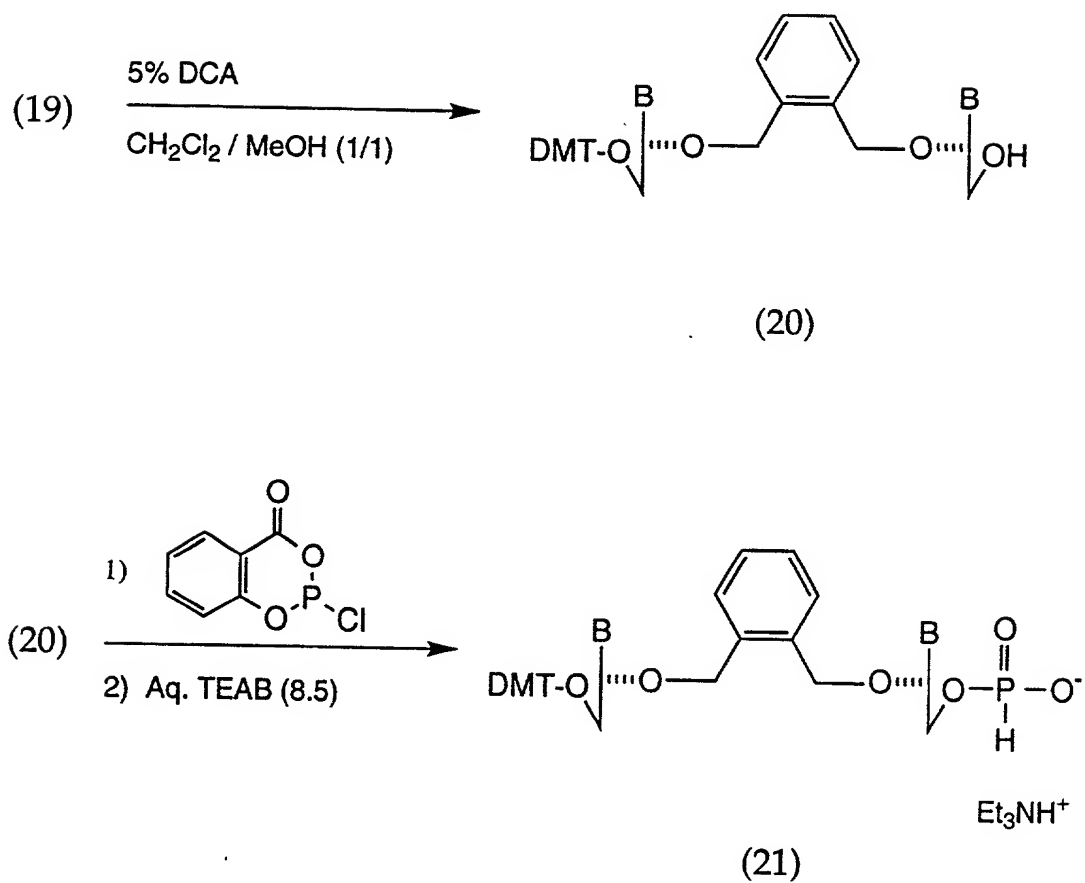


Figure 5-2

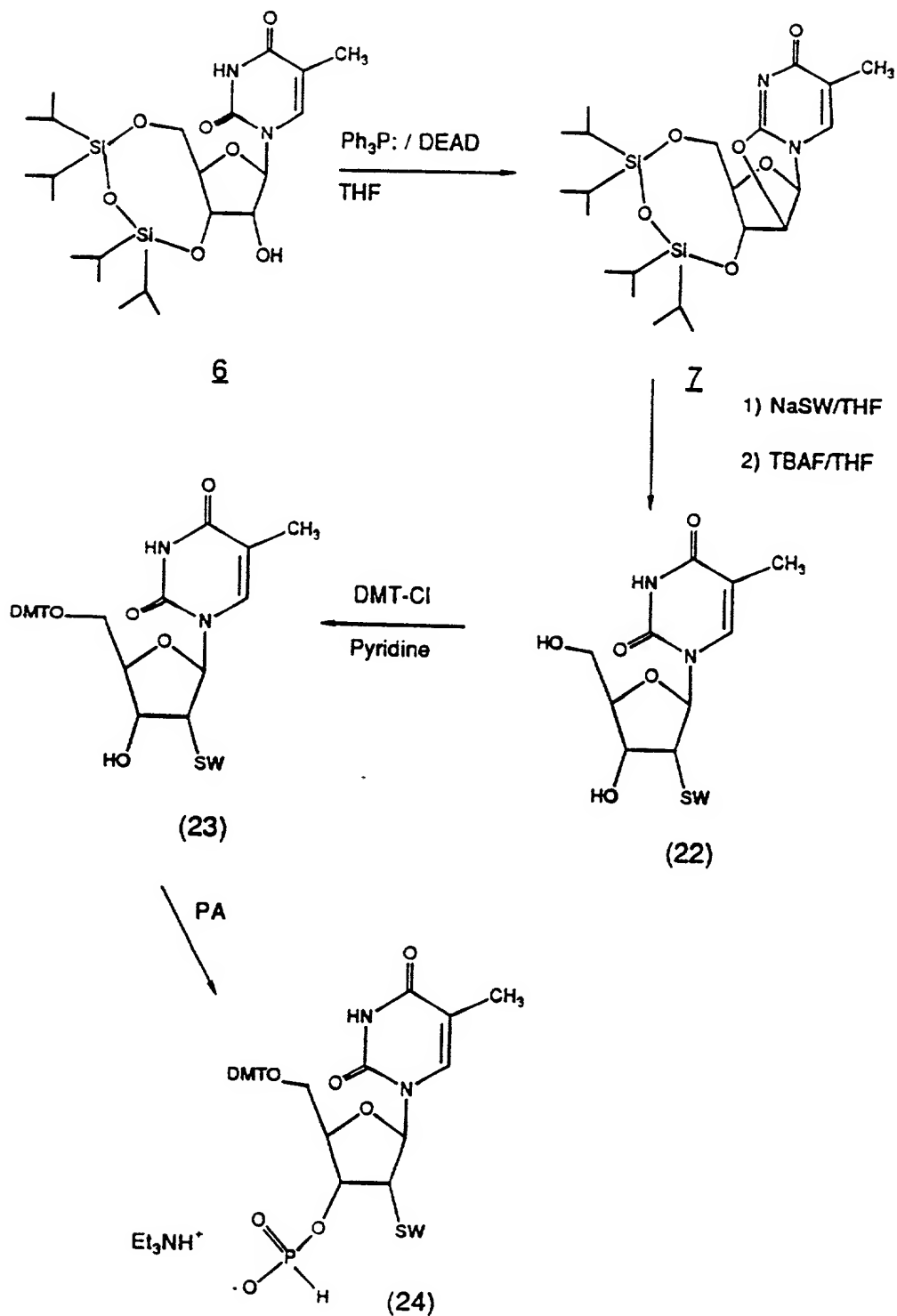


Figure 6



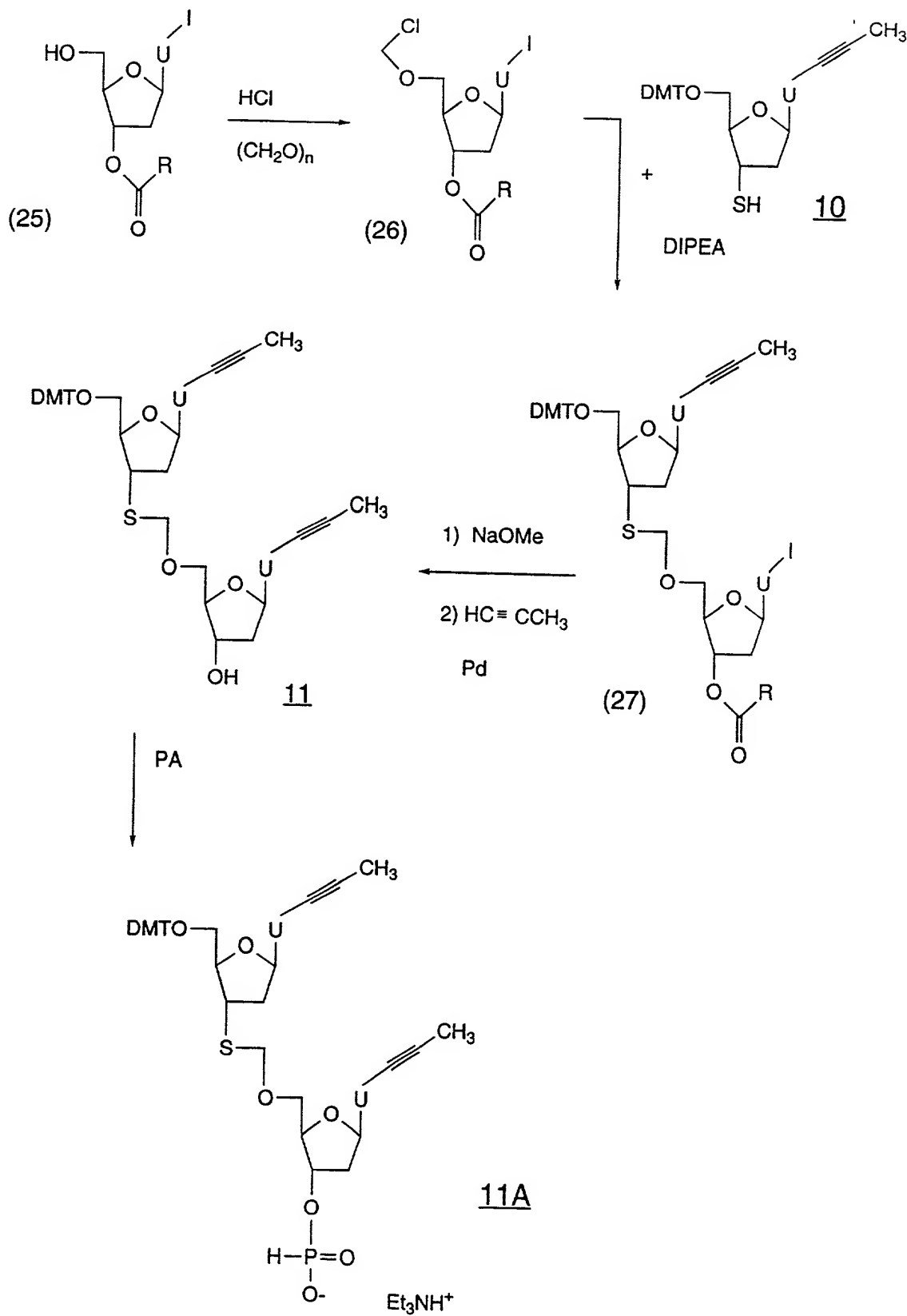


Figure 7

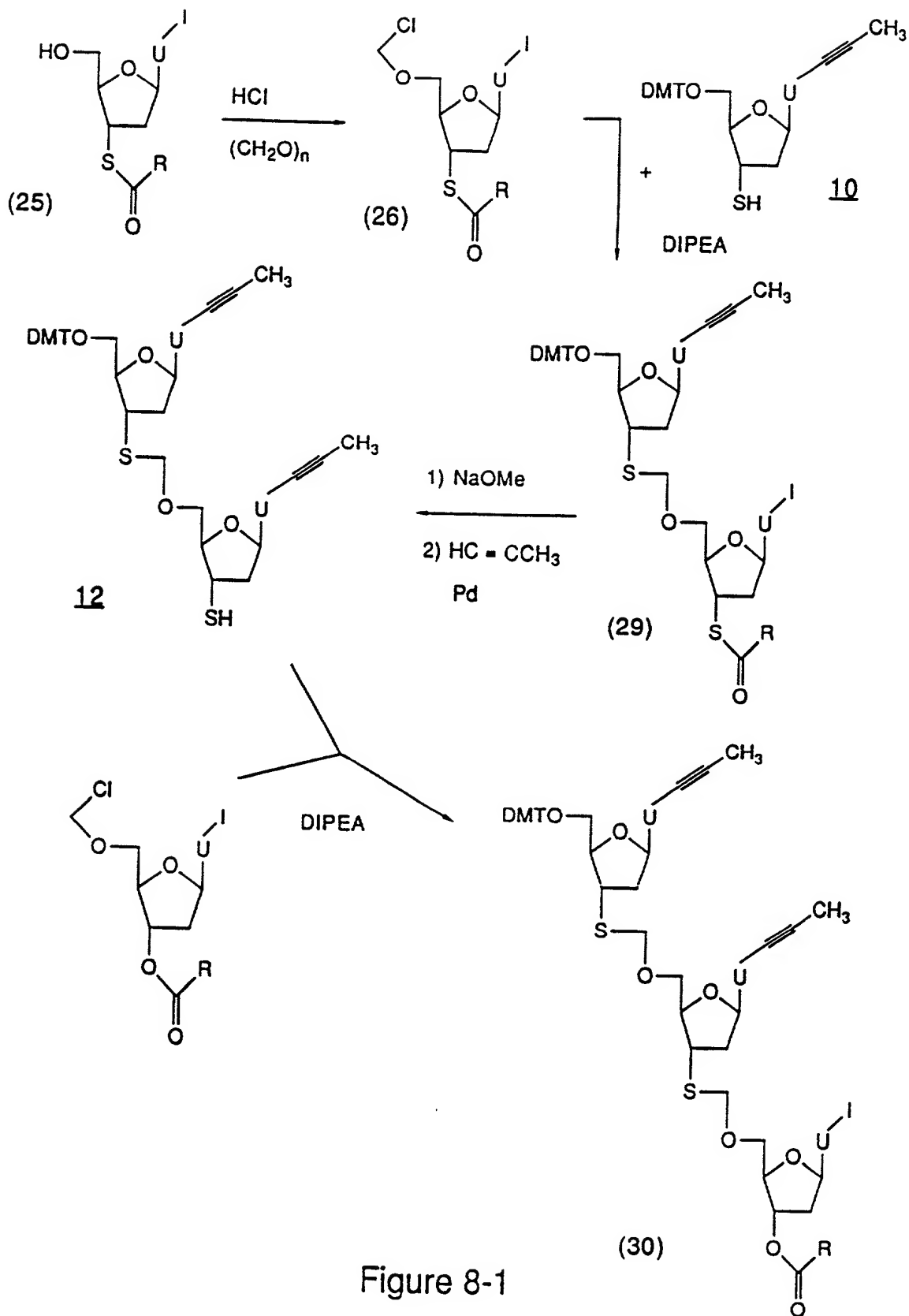


Figure 8-1

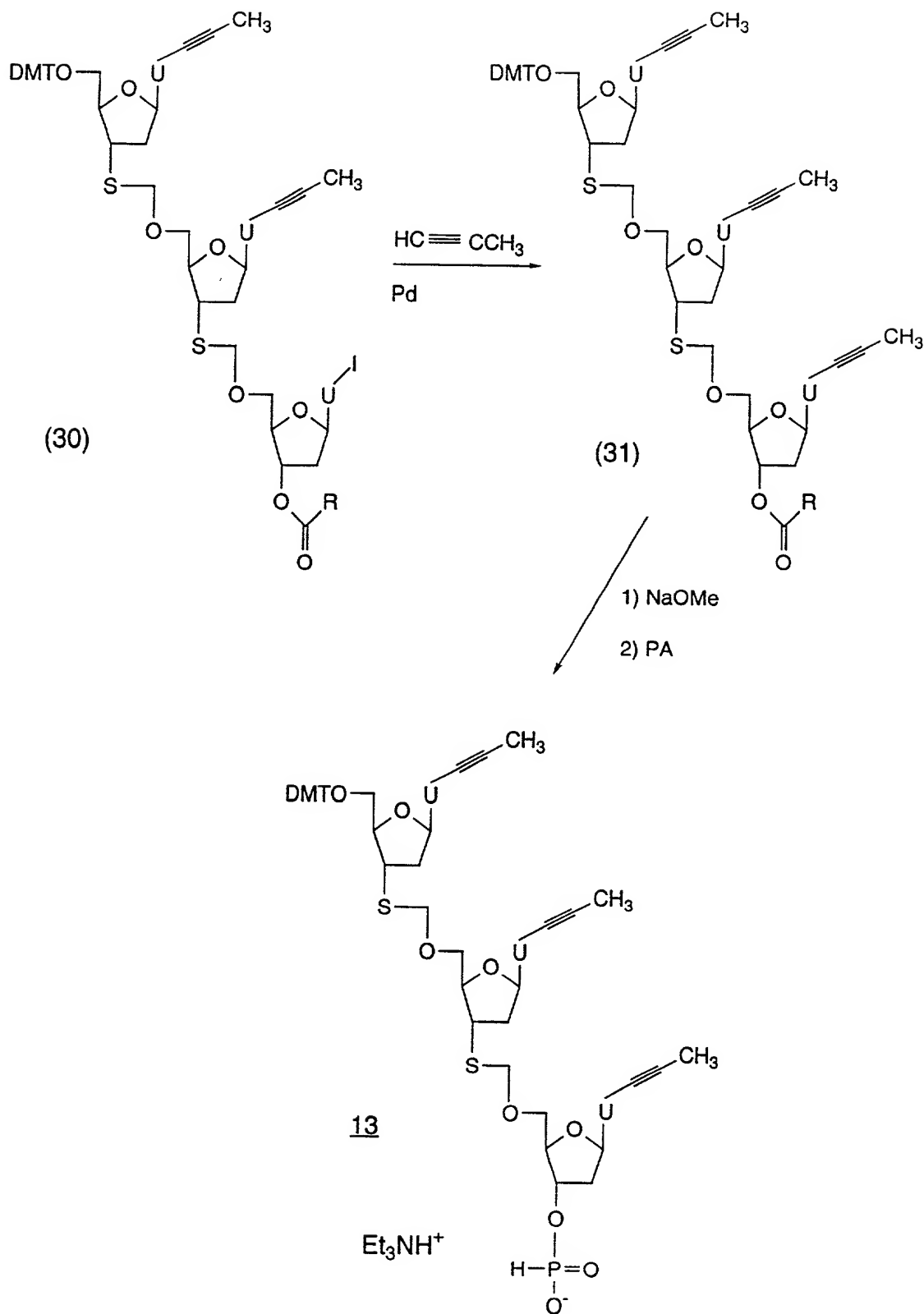


Figure 8-2

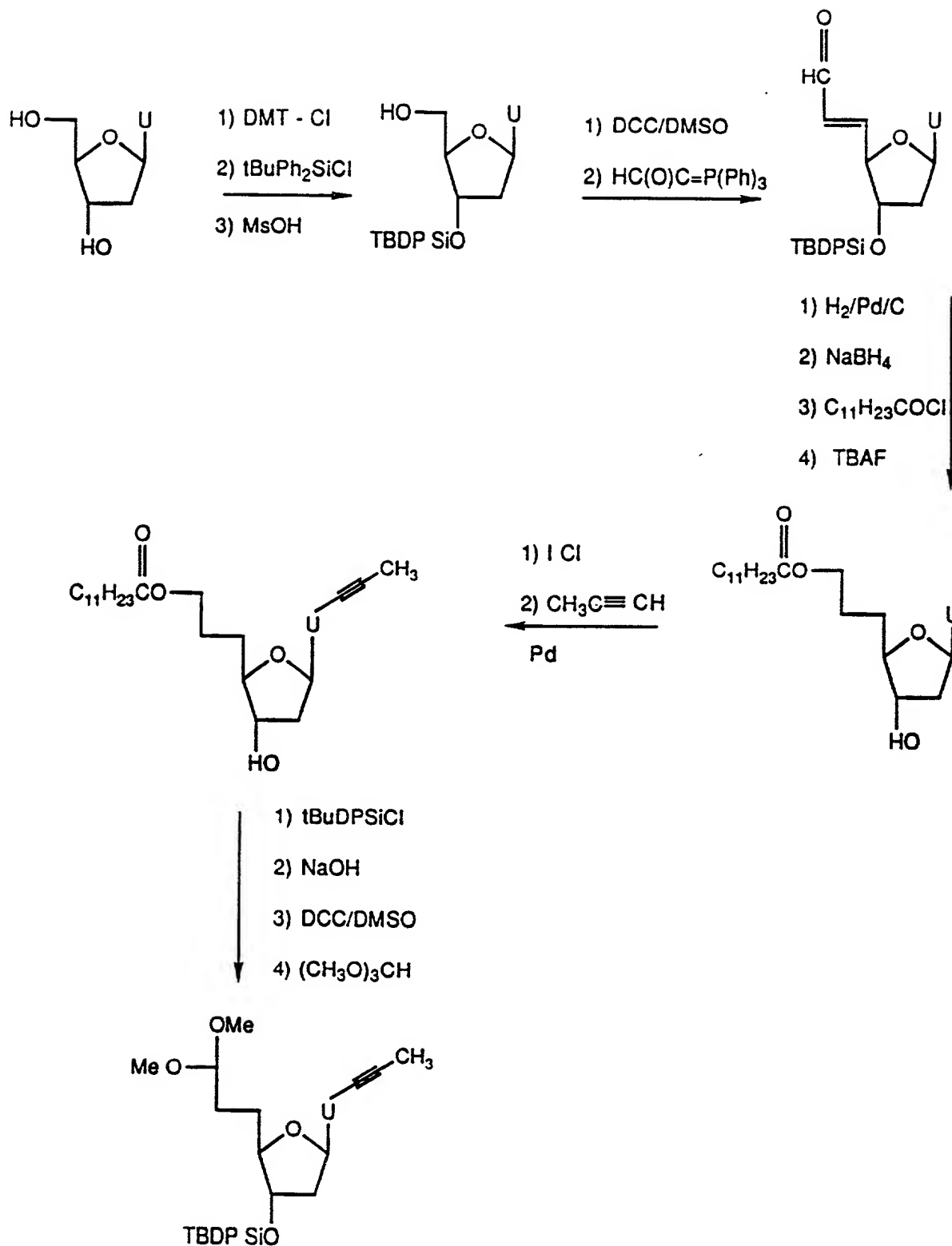
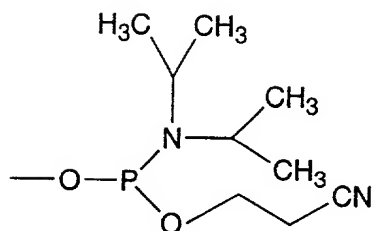
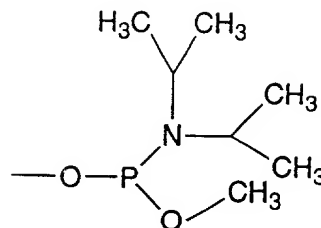


Figure 9-1

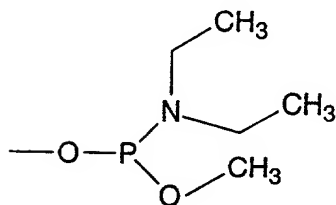




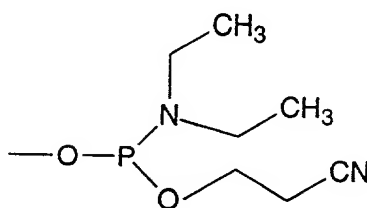
N,N-diisopropylamino- $\beta$ -  
cyanoethoxyphosphine



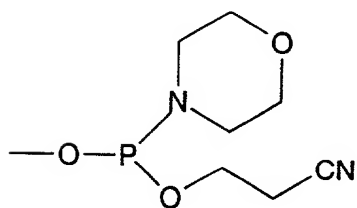
N,N-diisopropylamino-methoxy-  
phosphine



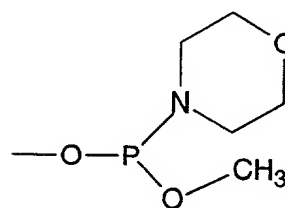
N,N-diethylamino-methoxy-  
phosphine



N,N-diethylamino- $\beta$ -cyanoethoxy  
phosphine

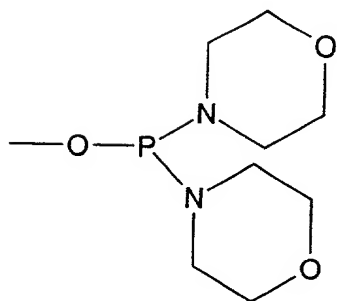


N-morpholino- $\beta$ -cyanoethoxyphosphine

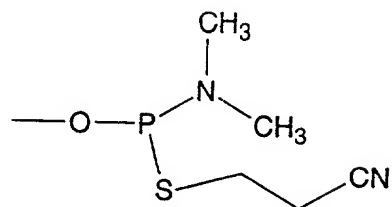


N-morpholino methoxyphosphine

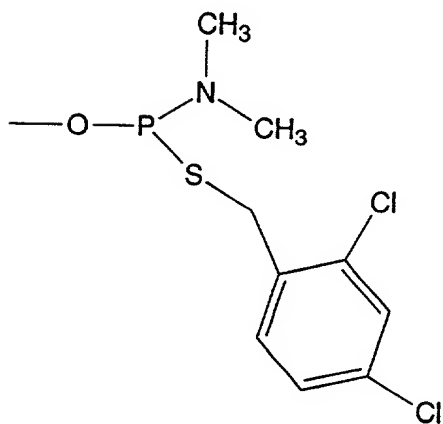
Figure 10-1



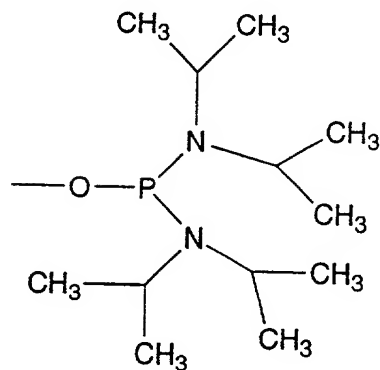
Bis morpholino-phosphine



N,N-dimethylamino-  
 β-cyanoethylmercapto-phosphine

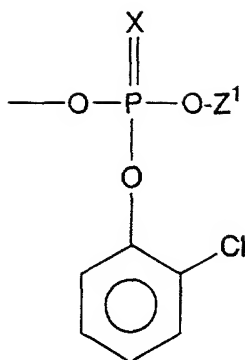


N,N-dimethylamino-  
 2,4-dichlorobenzylmercapto-  
 phosphine

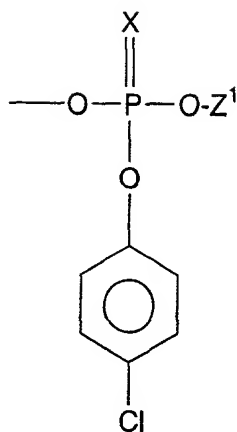


Bis(N,N-diisopropylamino)-  
 phosphine

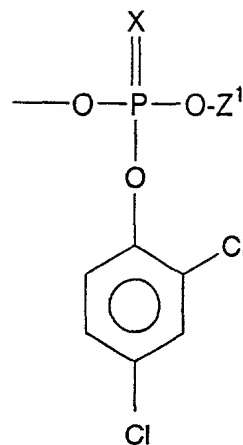
Figure 10-2



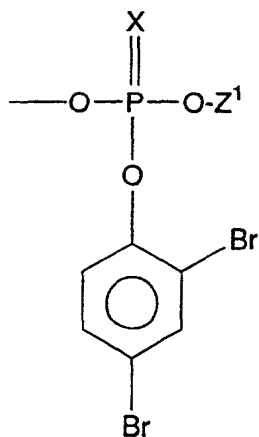
2-chlorophenyl  
phosphate



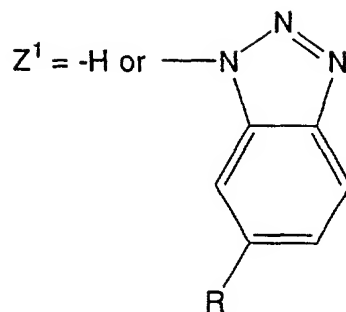
4-chlorophenyl  
phosphate



2,4-dichlorophenyl  
phosphate



2,4-dibromophenyl  
phosphate

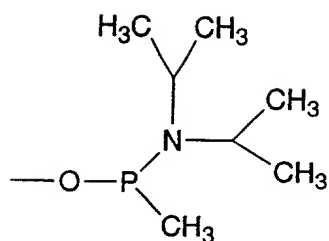


X = O or S

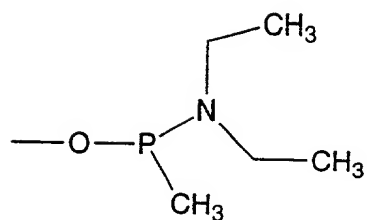
R = H, NO<sub>2</sub> and CF<sub>3</sub>

Figure 10-3





N,N-diisopropylamino-methyl-  
phosphine



N,N-diethylamino-methyl-  
phosphine

Figure 10-4

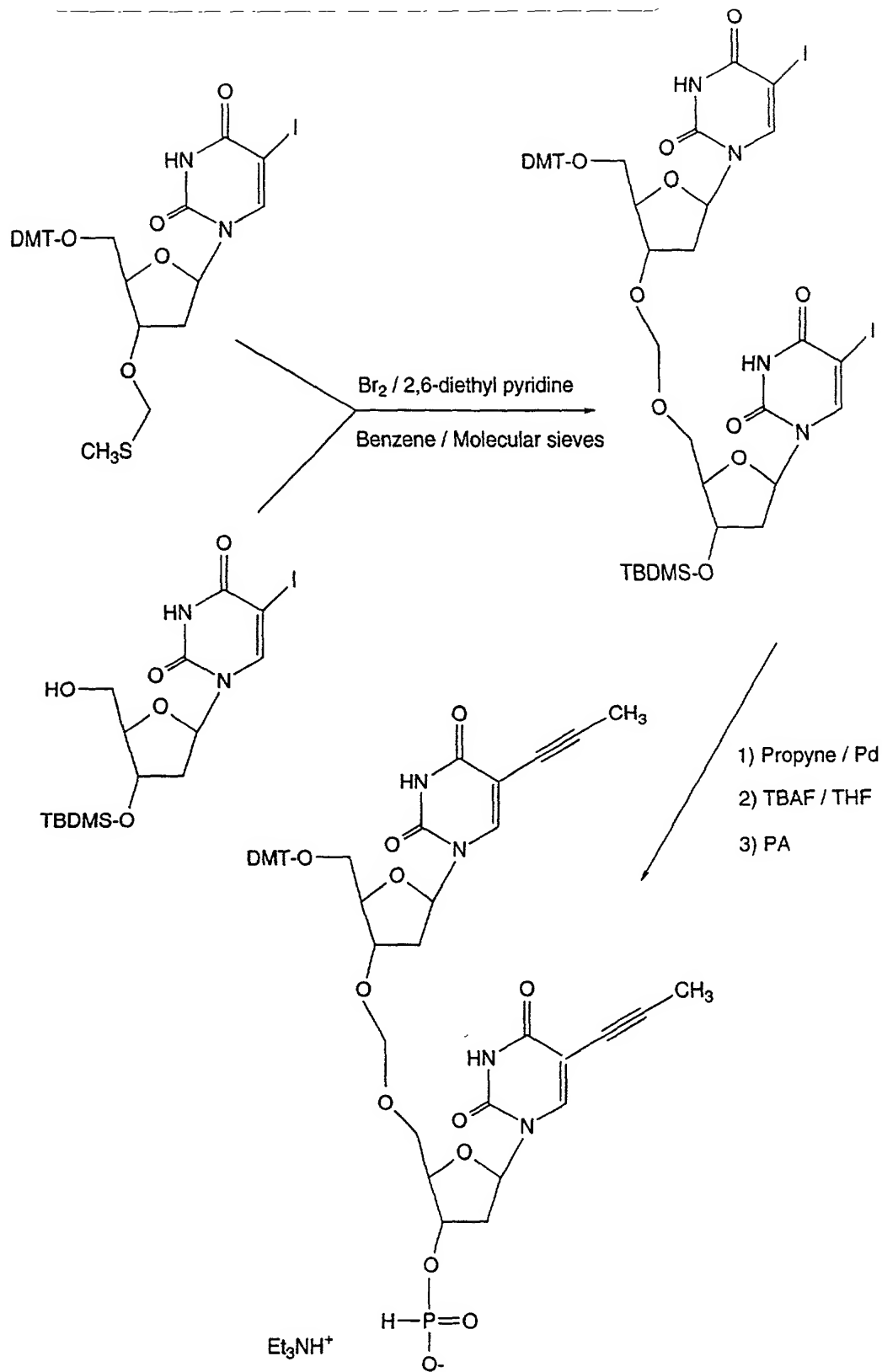


Figure 11

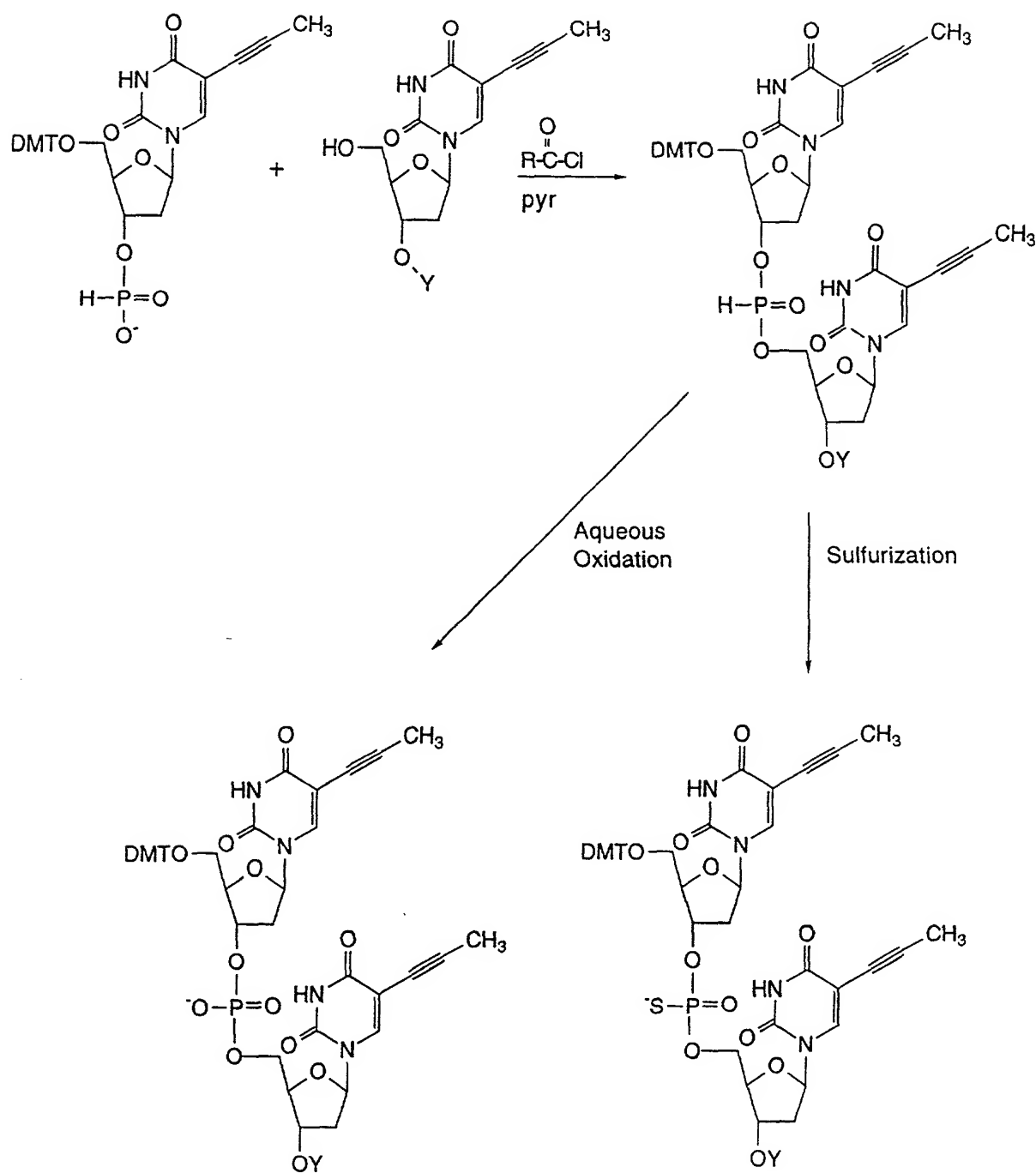


Figure 12-1

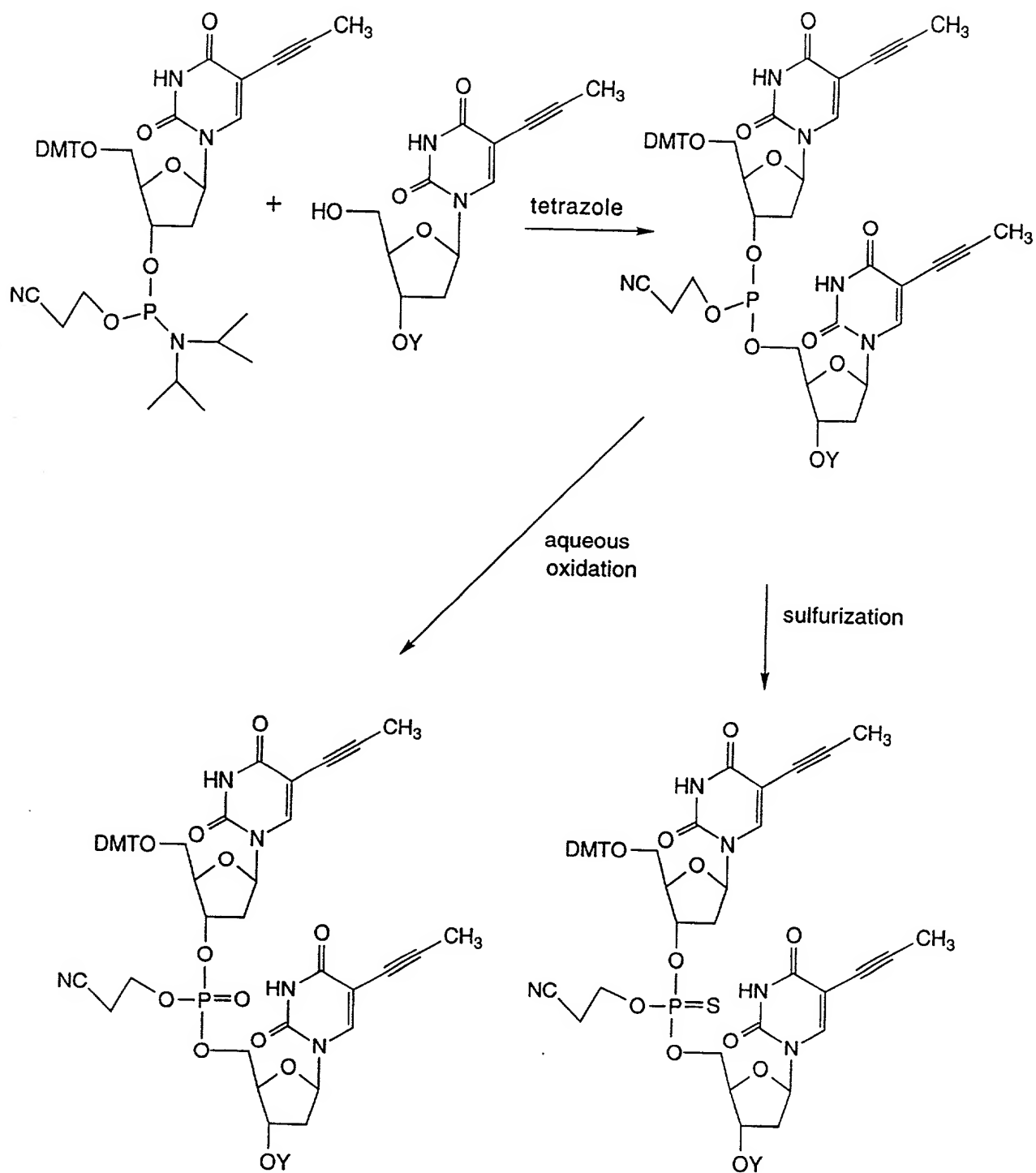


Figure 12-2

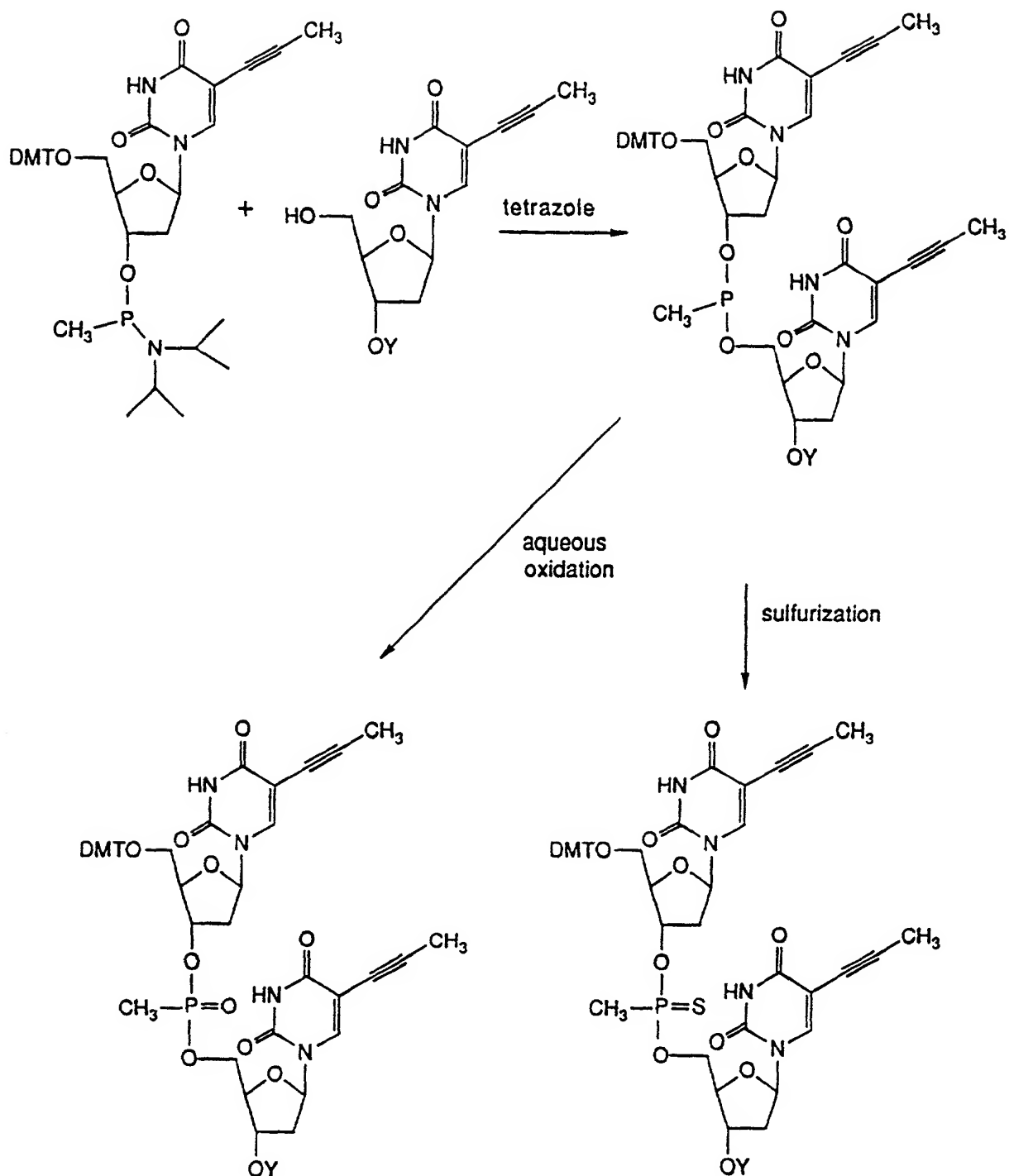


Figure 12-3

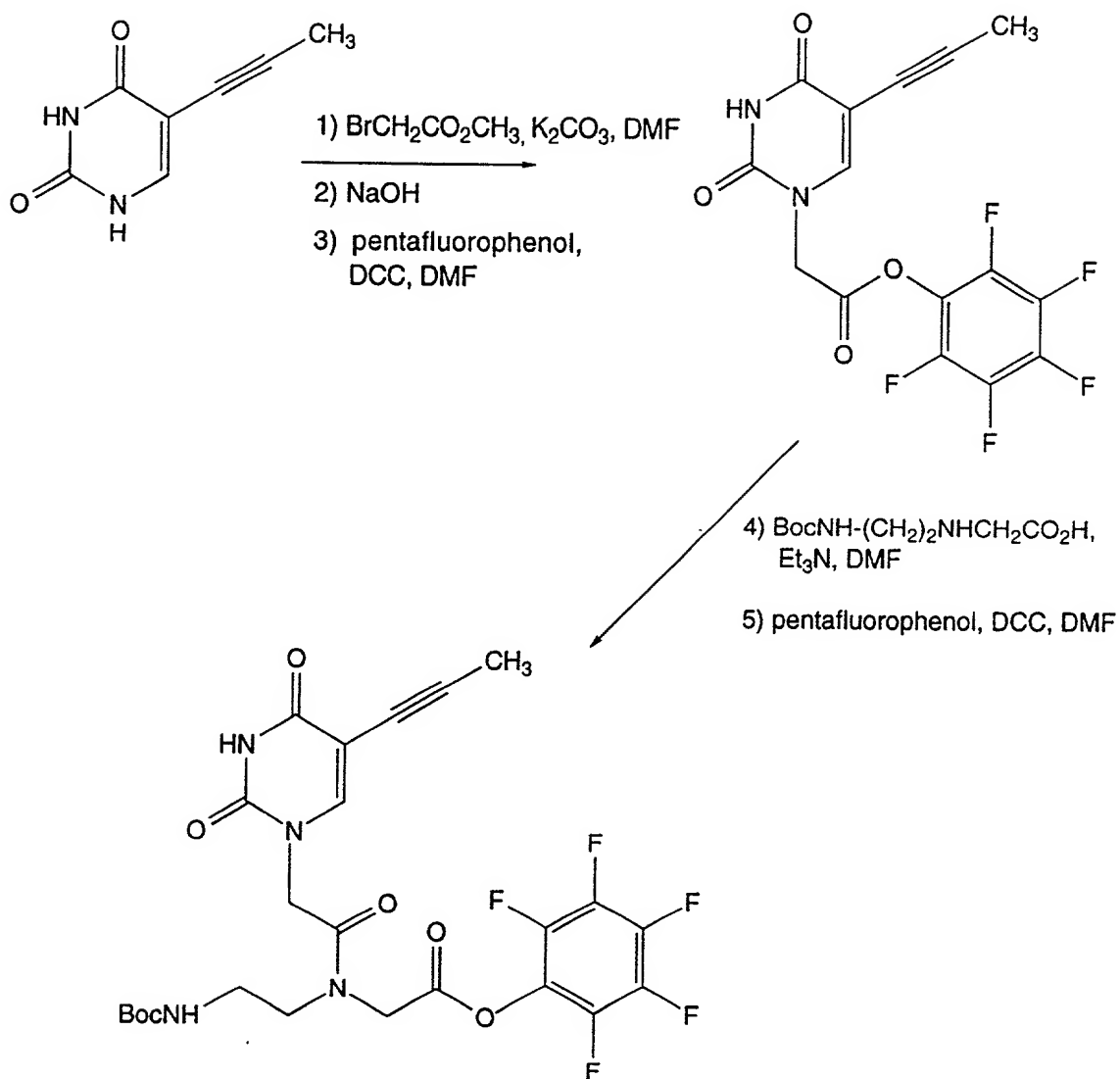


Figure 13

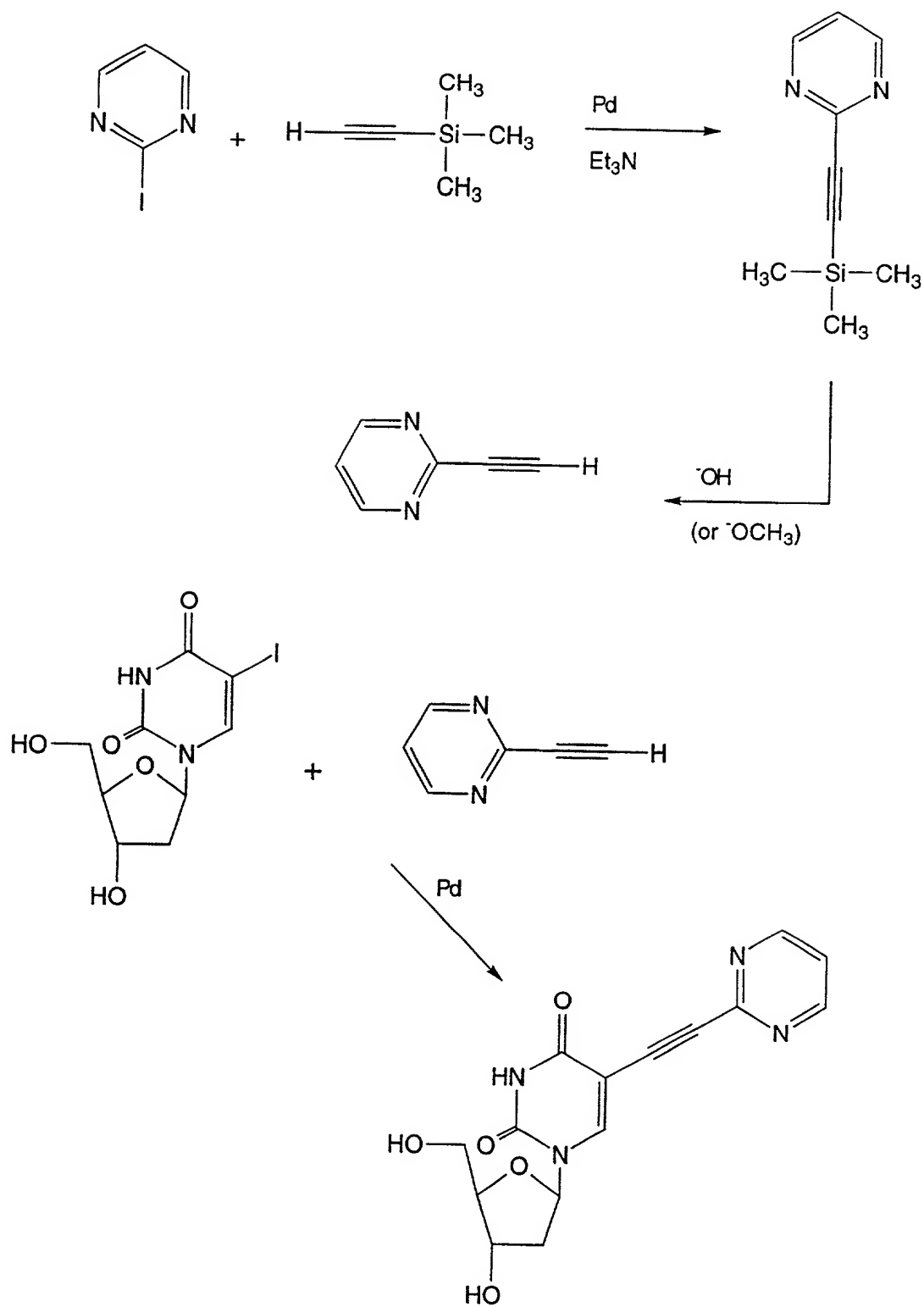


Figure 14

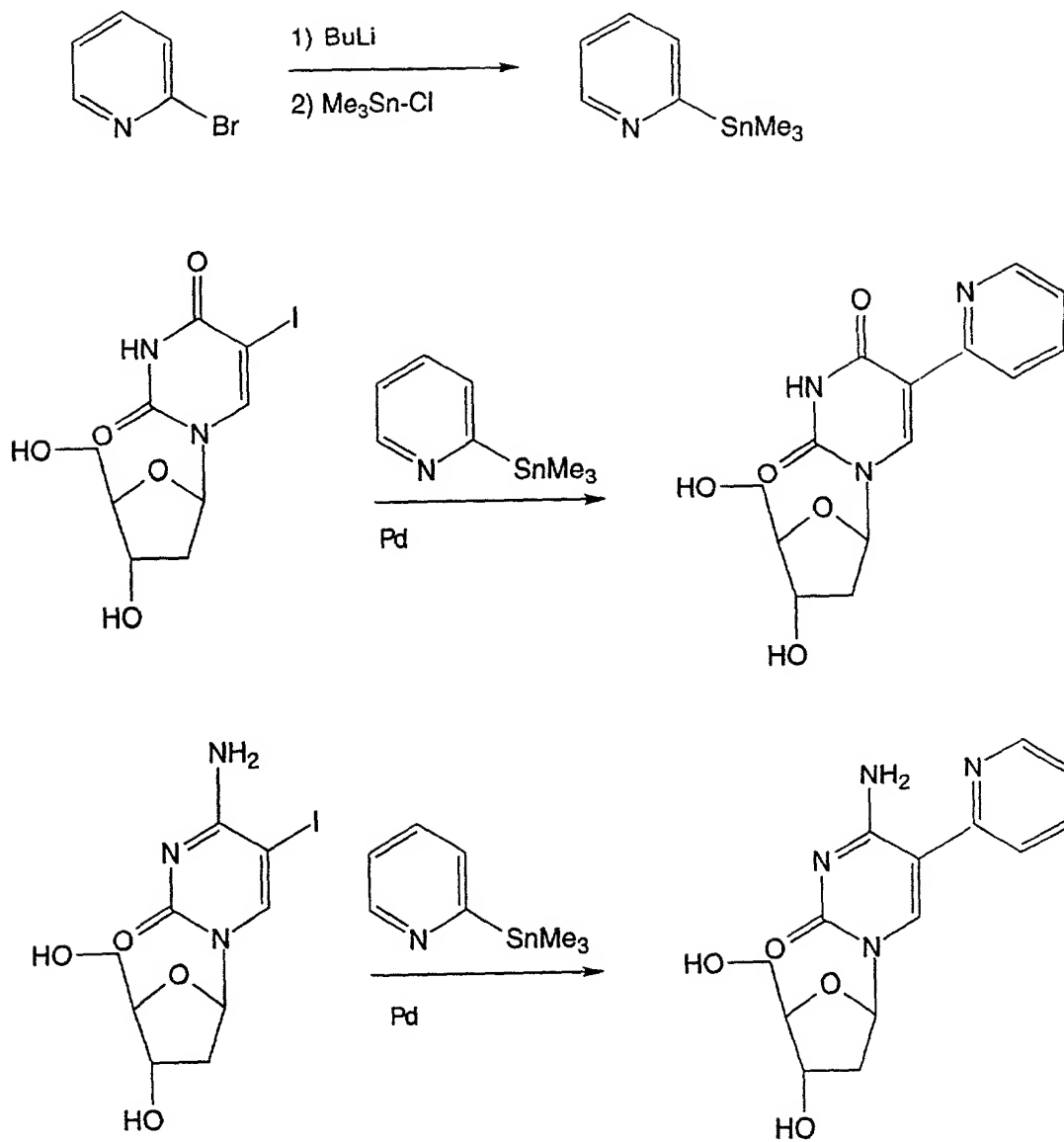


Figure 15



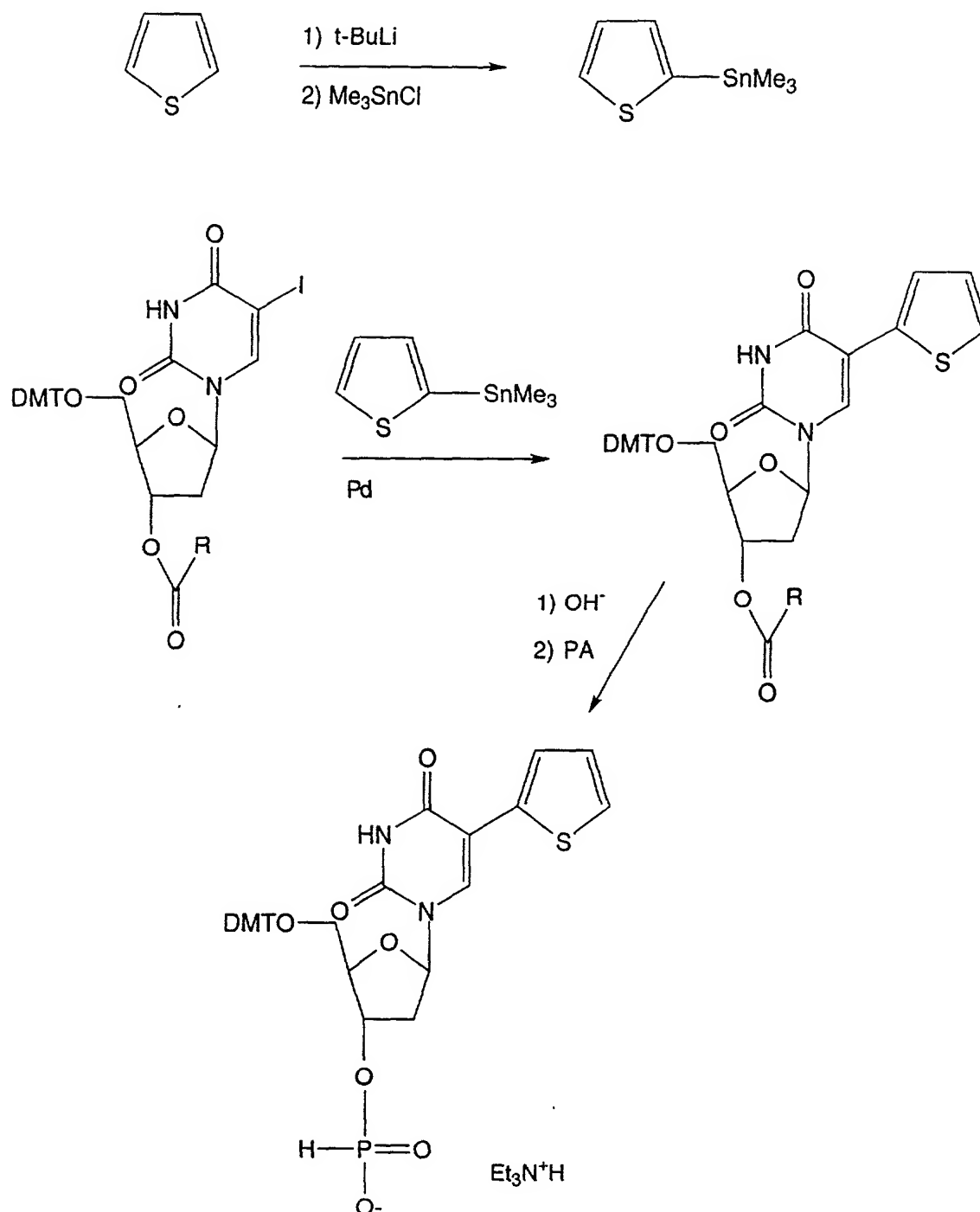


Figure 16

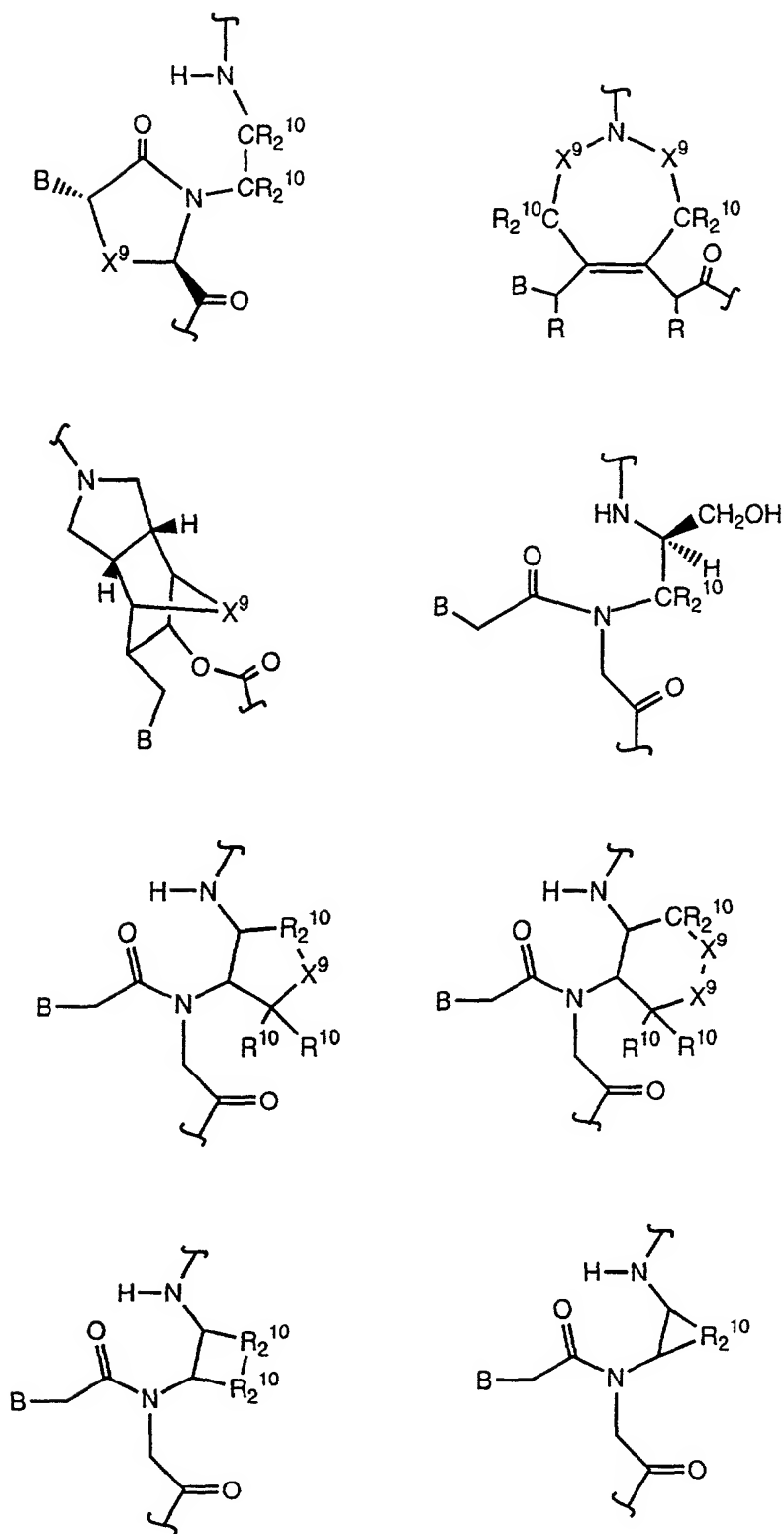


Figure 17-1

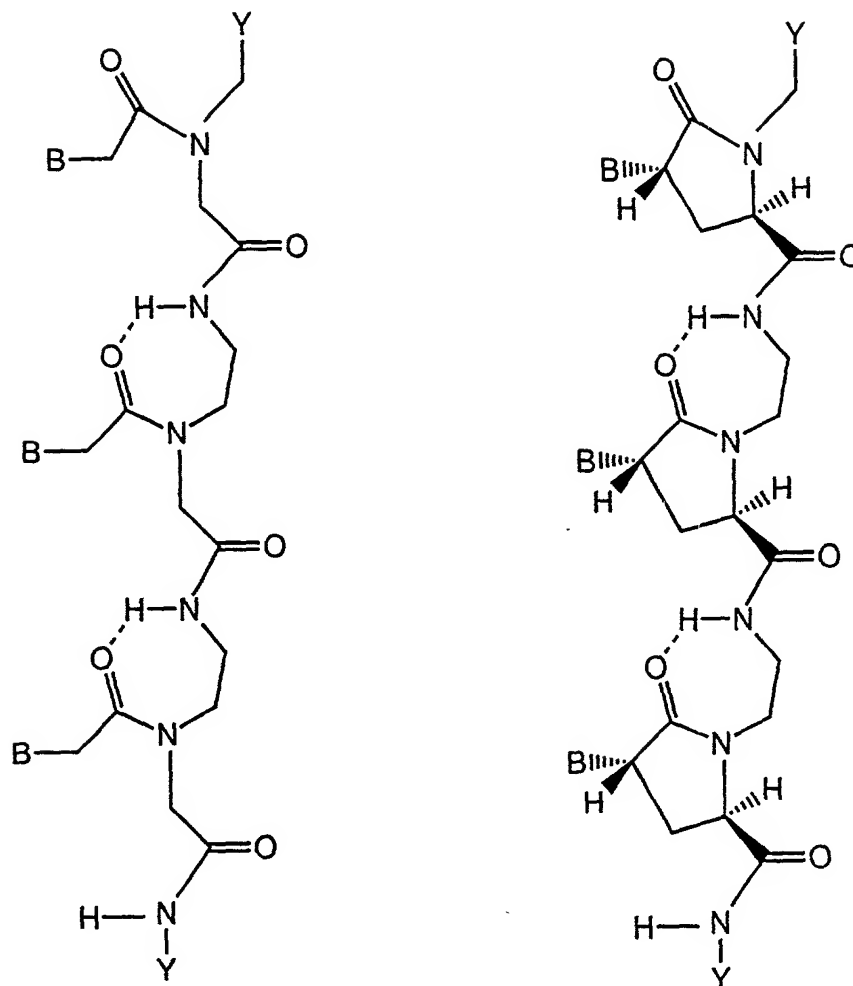


Figure 17-2

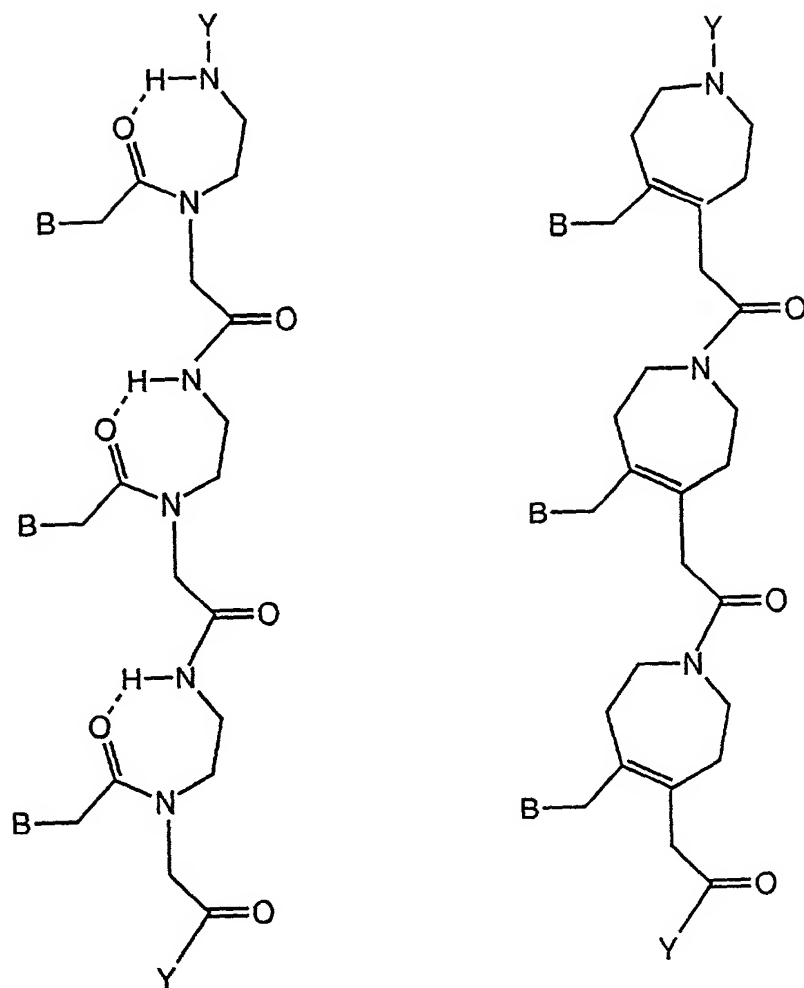


Figure 17-3

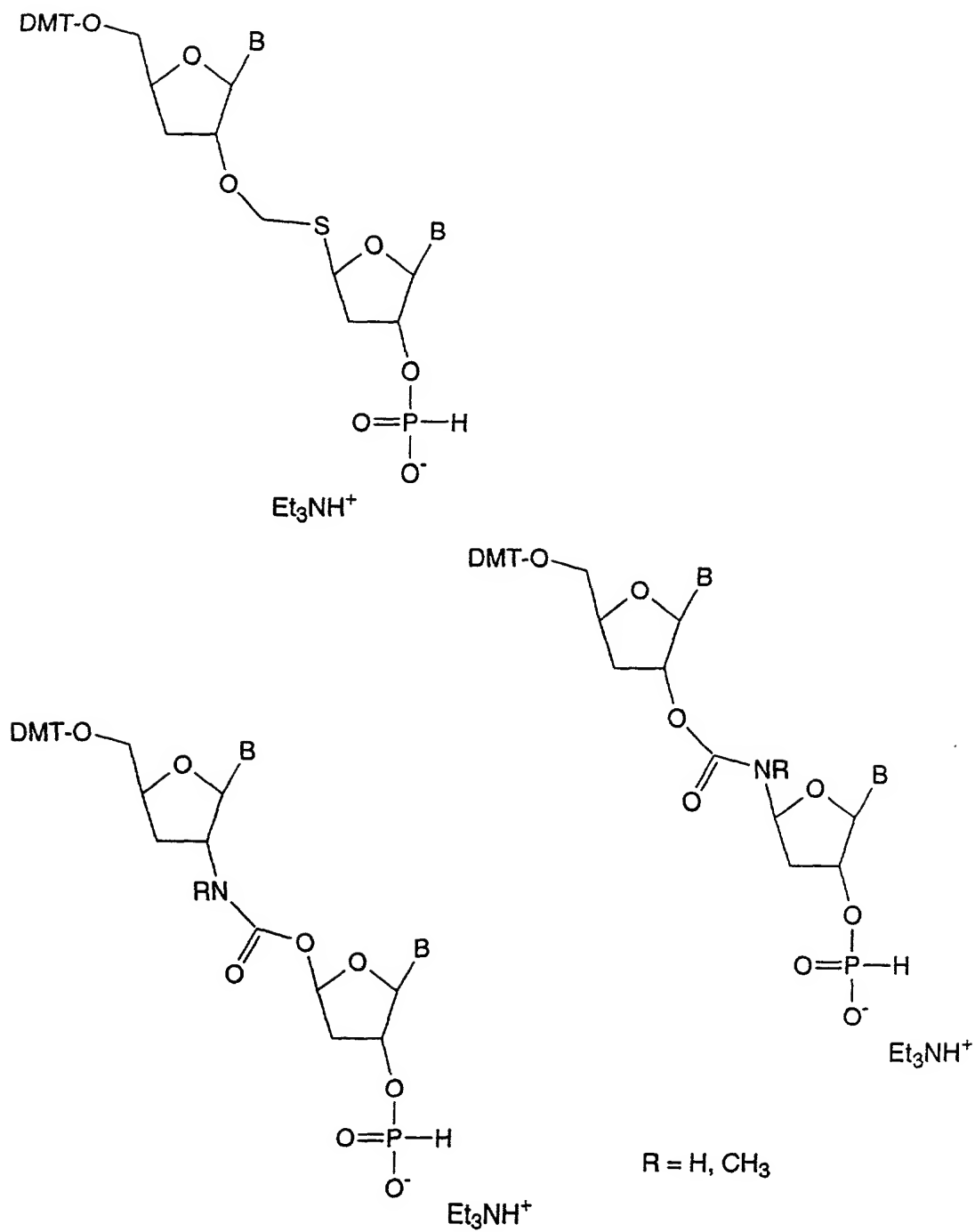


Figure 18